

All interested parties and stakeholders

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Dear stakeholder,

### **Ofgem's views on the design of arrangements to accommodate independent aggregators in energy markets**

The responses to the Smart, Flexible Energy System Call for Evidence<sup>1</sup> showed wide support for independent aggregators<sup>2</sup> to be able to access directly electricity markets<sup>3</sup> they cannot access directly now<sup>4</sup>. In recent years, independent aggregators have delivered a significant share of aggregated flexibility in markets they could access<sup>5</sup>. Given this and our wider research, we consider independent aggregator access to additional markets can deliver benefits to the consumer, subject to careful design of arrangements.

This letter explains our current views following analysis and consultation. Our intention here is to guide industry's thinking around the design of market arrangements to accommodate independent aggregators in energy markets. These arrangements are being discussed in a number of different fora. Our views are underpinned by our regulatory stances and wider duties to protect consumer interests. We focus on the following topical areas:

- access
- measurement
- cost reflective pricing, and
- balancing responsibility and delivery risk.

#### *Context*

On 24 July 2017 we published, jointly with government, the Smart Systems and Flexibility Plan<sup>6</sup>. It included the removal of undue barriers to demand-side response (DSR) aggregation.

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<sup>1</sup> <https://www.ofgem.gov.uk/publications-and-updates/smart-flexible-energy-system-call-evidence>

<sup>2</sup> Independent aggregators are defined here as parties who bundle changes in consumer's loads or distributed generation output for sale in organised markets and who do not simultaneously supply the customer with energy.

<sup>3</sup> By the word, 'markets', in this letter, we refer to all platforms within the power sector where independent aggregators can or have the potential to provide their services on a competitive basis.

<sup>4</sup> Independent aggregators currently have direct access to various ancillary services markets and the Capacity Market but not the Balancing Mechanism and the wholesale electricity market.

<sup>5</sup> For example, independent aggregators secured 76% of the 1.4 GW demand-side response the 2016 T-4 Capacity Market auction:

[https://www.ofgem.gov.uk/system/files/docs/2017/06/annual\\_report\\_on\\_the\\_operation\\_of\\_the\\_capacity\\_market\\_in\\_2016-17.pdf](https://www.ofgem.gov.uk/system/files/docs/2017/06/annual_report_on_the_operation_of_the_capacity_market_in_2016-17.pdf), P.29

<sup>6</sup> <https://www.ofgem.gov.uk/publications-and-updates/upgrading-our-energy-system-smart-systems-and-flexibility-plan>

We have been conducting analysis and engaging with the industry and other EU regulators<sup>7</sup> on a range of issues associated with aggregators. We also commissioned an independent report by Charles River Associates (CRA)<sup>8</sup>, which considered market design and access issues, including potential competition concerns.

### *The purpose of outlining our current views*

The role of independent aggregators has not been defined in existing industry codes such as the Balancing Settlement Code (BSC). Therefore, the introduction of independent aggregators in certain markets will need additions to, or alterations of, some existing industry codes in order to allow access to the Balancing Mechanism (BM) and wholesale electricity market. This may have implications for aspects such as the relationship between relevant parties and the measurement of DSR volume delivery. A number of these issues are being debated currently by the industry. Including various European fora<sup>9</sup>.

Careful design of arrangements that reflect these and other issues is important to protect against less efficient outcomes. There has been a range of research published in this area, including the CRA report we are publishing alongside this letter. We are therefore setting out our views, to guide the thinking in current and future industry discussions in this area.

### *Current Ofgem views*

#### **Access**

Ensuring a level playing field in market access by the different market participants supports competition. We therefore consider that market arrangements should enable aggregators, including independent aggregators, to access additional energy markets where they can be accommodated efficiently. Furthermore, the design of arrangements to facilitate independent aggregators' participation in energy markets should not build-in stages that require ex-ante consent of a customer's supplier. Please note that we are not referring here to potential adjustments to retail contracts in response to customers engaging in aggregation.

#### **Measurement**

DSR instructions by an aggregator result in lower or higher demand, which is measured at a certain metering point. This change may only affect a part of the load connected to a specified metering point. It can be challenging to distinguish between changes in demand attributed to a DSR instruction and changes in demand attributed to the demand characteristics of a particular customer ('business as usual' demand). However, measuring DSR volumes is key. We consider it important for the design of baseline methodologies<sup>10</sup> to balance accuracy and verifiability, on the one hand, against cost, on the other hand. This will help to ensure that the unique technical characteristics of DSR flexibility are taken into consideration and baseline gaming opportunities are mitigated, at a reasonable cost.

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<sup>7</sup> We contributed to the development of a joint ACER-CEER white paper on Facilitating Flexibility: [http://www.ceer.eu/portal/page/portal/EER\\_HOME/EER\\_PUBLICATIONS/CEER\\_PAPERS/White%20Papers/Positions/EuropeanEnergyRegulators\\_WhitePaper-3-Facilitating%20Flexibility\\_2017-05-22\\_PUBLIC\\_.pdf](http://www.ceer.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/CEER_PAPERS/White%20Papers/Positions/EuropeanEnergyRegulators_WhitePaper-3-Facilitating%20Flexibility_2017-05-22_PUBLIC_.pdf)

<sup>8</sup> This CRA report assessed relevant market designs for independent aggregators access to the Balancing Mechanism and potential competition concerns raised by stakeholders:

[http://www.ofgem.gov.uk/system/files/docs/2017/07/an\\_assessment\\_of\\_the\\_economic\\_value\\_of\\_demand-side\\_participation\\_in\\_the\\_balancing\\_mechanism\\_and\\_an\\_evaluation\\_of\\_options\\_to\\_improve\\_access.pdf](http://www.ofgem.gov.uk/system/files/docs/2017/07/an_assessment_of_the_economic_value_of_demand-side_participation_in_the_balancing_mechanism_and_an_evaluation_of_options_to_improve_access.pdf)

<sup>9</sup> For example, aggregators related issues are being discussed in the context of the Clean Energy Package and in the European Commission's Smart Grid Task Force.

<sup>10</sup> Baseline methodologies refers to the estimate of the counterfactual of electricity consumption in the absence of a DSR activation by an aggregator.

## ***Cost reflective pricing***

When an independent aggregator sells flexibility, its customer reduces<sup>11</sup> their energy consumption, as per their contract. The customer's supplier, however, has sourced energy in anticipation of the customer's normal energy use. The efficient formation of independent aggregator bids and offers may be best supported by arrangements that allow for payments to cover the cost of energy sold on by the independent aggregator, but initially sourced by the supplier. This should help ensure a more cost-reflective supply curve at a system level (also referred as efficient price formation) and a level playing field between different technologies. Given the maturity of competition in the non-domestic retail market, we consider payments for sold on energy may be most efficiently agreed in the retail contract terms between the supplier and the consumer. There may be lessons and additional considerations for households, when this become more relevant.

Related to this, the information flows, required to allow contractual arrangements to account efficiently for payments for energy sold on, merit careful consideration. In particular, a careful balance may need to be struck between enabling information flows to support efficient contractual arrangements, and the potential impact on competition in the market for flexibility.

## ***Balancing responsibility and delivery risk***

Under current arrangements, suppliers may receive payments, or be exposed to penalties, as a result of a customer being instructed by an independent aggregator. We consider that both balancing costs and delivery risks should be borne by the parties that created them. This should help ensure parties have the right balancing and delivery incentives, resulting in level playing field competition and more efficient outcomes.

## ***Way forward***

We expect the views in this letter to help guide thinking and support discussions of relevance to independent aggregators. We note that industry is already discussing these issues in a number of fora. These include modifications that industry members have raised<sup>12</sup>. We encourage stakeholders to get involved in the modification group process either by attending the meetings or responding to the consultations. This should help progress discussions on the views expressed in this letter. We will however consider all modifications on their merits and in accordance with relevant code objectives and our statutory duties.

If you have any questions about this letter, please contact either Shai Hassid ([Shai.Hassid@ofgem.gov.uk](mailto:Shai.Hassid@ofgem.gov.uk)) or Louise van Rensburg ([Louise.vanRensburg@ofgem.gov.uk](mailto:Louise.vanRensburg@ofgem.gov.uk)).

Yours sincerely

**Louise van Rensburg**  
**Energy Systems Integration**

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<sup>11</sup> For this example, load reduction is assumed. However, the same logic applies for load increase. In this case, the supplier bills the customer for more energy than it initially sourced. An efficient arrangement in that case might require the customer to be credited on that volume by the supplier.

<sup>12</sup> These includes, among others, P344 on Trans European Replacement Reserves Exchange (TERRE) (<https://www.elexon.co.uk/mod-proposal/p344/>) which also discusses independent aggregators' access to the BM, and P354 (<https://www.elexon.co.uk/mod-proposal/p354/>) which discusses the correction of balancing perimeters as a result of instruction of 'non-BM' parties' (parties that are not signatories to the Balancing Settlement Code) by the system operator.